

### • Description

This is a miniature Methane sensor for measuring Methane gas concentration. It is designed mainly for handheld and compact instruments.

### • Performance Characteristics

Nominal Range:	0 ~ 100% LEL
Maximum Overload:	100% LEL
Sensitivity (20°C):	$43 \pm 8$ mV/%CH <sub>4</sub>
Response Time (T90):	< 10 s
Zero Signal (20°C):	< $\pm 0.3$ $\mu$ A
Working Current:	< 125 mA
Linearity:	0 ~ 80% LEL
Working Voltage:	$2.5 \pm 0.1$ VDC
Resolution:	< 1% LEL

### • Environmental

Temperature Range:	-30°C ~ 50°C
Pressure Range:	80 ~ 116 kPa
Humidity Range:	$\leq 95\%$ RH (25°C)
Hydrogen Sulfide Content:	$\leq 6$ ppm (non-toxic components)

### • Life Time

Recommended Storage Temp:	0°C ~ 40°C
Expected Operating Life:	3 years in clean air
Storage Life:	6 months in original packaging
Warranty:	12 months

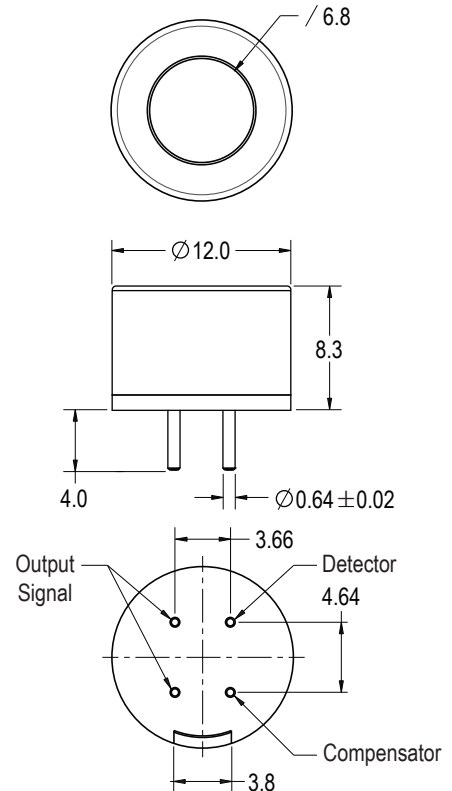
### • Physical Characteristics

Housing Material:	Nylon
Weight (Nominal):	1 g
Orientation:	None

### • Installation

Inappropriate use of the pins in product design will affect the sensor functionality. If the sensor is used in extreme environmental conditions, please contact us for more details.

### • Product Dimensions



(The two signal output terminals need to be short-circuited in actual application)



All dimensions in mm

All tolerances  $\pm 0.20$  mm unless otherwise stated

### • Note

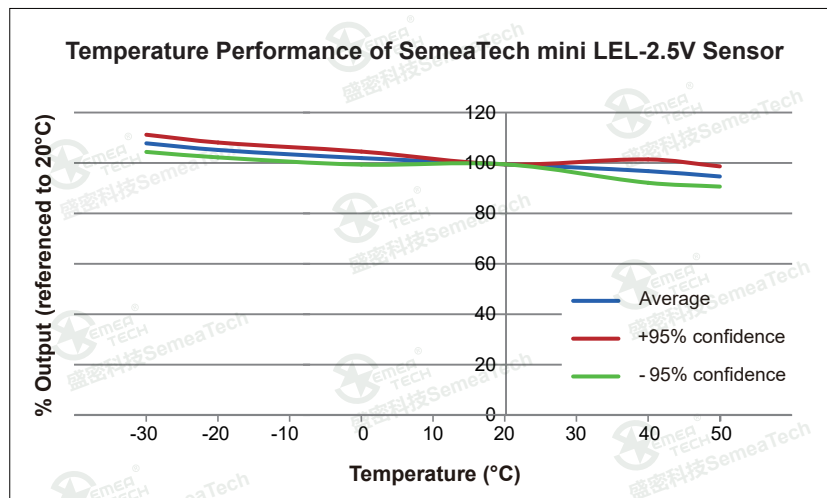
The performance data in this document are conducted by using SemeaTech recommended test circuitry and test environment at 20°C, 50%RH and 1 atm. Sensor performance varies under different environmental conditions. Please contact us if you need more details.

- **Cross-Sensitivity Data**

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Note: The cross sensitivities include but not limited to the above gases. It may also respond to other gases. The data in the table above may vary from different batches of sensors and the changes of test environment. Calibration using the gases that have the cross sensitivities to this sensor is not recommended.

- **Temperature Data**



- **Safety Note**

This sensor is designed to be used in certain instruments for life critical applications. To ensure the sensor functions per its specifications inside the instrument, it is required to read the instrument user's guide carefully and comply with the calibration procedures by using certified target calibration gas before each use. Failure to do so may cause serious injury and fatality. Please do not open the sensor plastic enclosure because the electrolyte and other chemicals stored inside are harmful.

It is highly recommended for customers to validate the sensor performance using this document as a reference for their product designs or applications.

This product data sheet is used for reference only.

SemeaTech is committed to providing its customers the most accurate data based on its best knowledge. SemeaTech does not provide a product warranty for failures of using its products in accordance with product specifications that are described in the datasheet, or other misuses, abuse, negligence to the product.